

Portable Power Cable Extra Heavy Duty EPR / NEO 90°C MSHA Mining Grade



SPECIFICATIONS & STANDARDS

ICEA S-75-381/NEMA WC58, ASTM B 172, ASTM B 33

CONSTRUCTION:

- Conductors:** Flexible strand tinned copper conductor, ASTM B-172 and ICEA S-75-381, table 3-22
- Separator:** Polyester tape between conductor and insulation. ICEA S-75-381
- Conductor Shield:** Extruded semi-conducting layer over conductor. ICEA S-75-381 sec. 3.14
- Insulation:** Ethylene-propylene rubber (EPR) ICEA S-75-381, table 3-22
- Insulation Shield:** Non-conducting bedding tape and composite tinned copper/polyamide braid 60% minimum coverage
- Color Code:** Polyamide braid color code - black, white, red, ICEA S-75-381
- Grounding Cond:** Tinned copper - ICEA S-75-381 Tab. 3-22
- Ground Check:** Yellow polypropylene-insulated tinned copper conductor, ICEA S-75-381 Tab. 3-22
- Cable Assembly:** Three power conductors, ground check and two non-insulated grounding conductors cabled together to form a round cable core
- Separator:** Single faced rubber-filled binder tape applied over core
- Jacket:** Black, extra heavy duty, high torsion-resistant, integral-filled, reinforced Neoprene thermoset jacket, ICEA S-75-381 Tab. 3-3, 3-22, Sec. 3.21

FEATURES	APPLICATION
<ul style="list-style-type: none"> - Excellent flexibility - Highly ozone, sun, weather, water and flame resistant - Rated and flexible at -50°C - Excellent impact and abrasion resistant - Oil and heat resistant - Indent printed for easy identification 	<ul style="list-style-type: none"> - Use on AC off track equipment such as longwall miners loaders, drills, conveyors, pumps and mobile equipment requiring grounding conductors and a ground check conductor and metallic shielding overall - Maximum continuous conductor temperature is 90°C

APPROVALS:

MSHA: P-07-KA060012

Part Number	Power Conductor Size	Power Conductor Stranding	Ground Check Conductor Size	Grounding Conductor		Nominal Insulation Thickness	Nominal Jacket Thickness	Nominal O.D.		Approx. Weight	
				Size	Stranding			inches	mm	lbs/1000ft	kgs/km
SHDGC5KV4-3	4 AWG	259 7x37	8	8	133 7x19	0.110	0.185	1.68	42.7	1769	2633
SHDGC5KV2-3	2 AWG	259 7x37		6	133 7x19	0.110	0.205	1.87	47.5	2370	3527
SHDGC5KV1-3	1 AWG	259 7x37		5	133 7x19	0.110	0.205	1.95	49.5	2660	3959
SHDGC5KV1/0-3	1/0 AWG	266 19x14		4	259 7x37	0.110	0.220	2.08	52.8	3200	4762
SHDGC5KV2/0-3	2/0 AWG	342 19x18		3	259 7x37	0.110	0.220	2.20	55.9	3615	5380
SHDGC5KV4/0-3	4/0 AWG	532 19x28		1	259 7x37	0.110	0.235	2.50	63.5	5059	7529
SHDGC5KV350-3	350 MCM	888 37x24		2/0	342 19x18	0.120	0.265	2.95	74.9	7700	11458
SHDGC5KV500-3	500 MCM	1221 37x33		4/0	532 19x28	0.120	0.280	3.31	84.1	10200	15178

ELECTRICAL AND MECHANICAL PARAMETERS

Conductor Size		Power Conductor Resistance at 25°C	Grounding Conductor Resistance at 25°C	Ground Check Conductor Resistance at 25°C	Inductance per unit length	Operating Capacitance per unit length	Permissible Short-Circuit Current ⁽²⁾ (1s)	Ampacity ⁽¹⁾ 40°C Ambient Temp.	Maximum Permissible Tensile Force
Power	Grounding								
AWG or MCM		Ω/1000Ft	Ω/1000Ft	Ω/1000Ft	mH/1000Ft	μF/1000Ft	kA	A	N
4 AWG	8 AWG	0.274	0.697	0.679	0.107	0.11	3.03	122	950
2 AWG	6 AWG	0.172	0.436	0.679	0.101	0.13	4.80	159	1500
1 AWG	5 AWG	0.137	0.349	0.679	0.100	0.13	6.06	184	1900
1/0 AWG	4 AWG	0.109	0.274	0.679	0.097	0.14	7.65	211	2400
2/0 AWG	3 AWG	0.0868	0.227	0.679	0.092	0.16	9.64	243	3000
4/0 AWG	1 AWG	0.0546	0.137	0.679	0.088	0.19	15.30	321	4800
350 MCM	2/0 AWG	0.0333	0.0868	0.436	0.081	0.24	25.31	435	7900
500 MCM	4/0 AWG	0.0233	0.0546	0.436	0.078	0.28	36.18	536	11400

(1) Ampacity- Free air measured; Based on continuous duty at 90°C conductor temperature (2) Short-circuit current (1s) – Based on conductor temperature from 90°C up to 250°C

STANDARD PRINT LEGEND:

TF CABLE (VOLTAGE) (SIZE) TYPE SHD-GC
FT1 FT5 (-50C) +90C P-07-KA060012-MSHA

SPECIAL FACTORY OPTIONS:

- Jacket:** Red, yellow, green, orange, blue
- MSHA:** P-7K-268101 (CPE)
- Jacket:** TPU Red, yellow, green, orange, blue
- MSHA:** P-07-KA030001 (TPU)